



Neilson Research Corporation
245 S Grape St
Medford, OR 97501
TEL: (541) 770-5678 FAX: (541) 770-2901
Website: www.nrclabs.com

April 30, 2024

Ron Havniar
Medford School District
900 Kenyon St
Medford, OR 97501
TEL: 541-842-3646
FAX 541-842-1160

RE: Ruch Elementary Nitrate and VOC

Order No.: 24040941

Dear Ron Havniar:

Neilson Research Corporation received 1 sample(s) on 4/22/2024 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,
Neilson Research Corporation

Tamra Schmedemann
Senior Project Manager
245 S Grape St
Medford, OR 97501



Original



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Case Narrative

WO#: 24040941
Date: 4/30/2024

CLIENT: Medford School District

Project: Ruch Elementary Nitrate and VOC

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

Original



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Analytical Report

WO#: 24040941
Date Reported: 4/30/2024

CLIENT: Medford School District
Lab ID: 24040941-01A
Client Sample ID: Ruch Elementary
Project: Ruch Elementary Nitrate and VOC
Sample Location: Well House Spigot
Sample Address:

Collection Date: 4/22/2024 10:27:00 AM
Received Date: 4/22/2024 12:44:00 PM
Matrix: DRINKING WATER
PWS #: 41-91508
Source ID: EP-A
Sample Collector: DANIELLE GARTEN/NRC

Analyses	Code	Method	NELAP		Qual	RL Units	Date		Analyst
			Status	Result	DF		MCL	Analyzed	
Nitrate	1040	E300.0	A	5.49	1	0.200 mg/L	10.0	04/22/24 18:26	SMB

QUALIFIERS

C1	Sample container temperature is out of limit as specified at testcode	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	MI	Recovery outside control limits due to Matrix Interference
ND	Not Detected at the Reporting Limit	PL	Permit Limit

Original

NELAP

NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028



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Analytical Report

WO#: 24040941
Date Reported: 4/30/2024

CLIENT: Medford School District
Lab ID: 24040941-01B
Client Sample ID: Ruch Elementary
Project: Ruch Elementary Nitrate and VOC
Sample Location: Well House Spigot
Sample Address:

Collection Date: 4/22/2024 10:27:00 AM
Received Date: 4/22/2024 12:44:00 PM
Matrix: DRINKING WATER
PWS #: 41-91508
Source ID: EP-A
Sample Collector: DANIELLE GARTEN/NRC

Analyses	Code	Method	NELAP		Qual	DF	RL Units	Date		Analyst
			Status	Result				MCL	Analyzed	
Tetrachloroethene (PCE)	2987	E524.2	A	ND	1		0.000500 mg/L	0.00500	04/26/24 13:55	TJW
Vinyl chloride	2976	E524.2	A	ND MI	1		0.000500 mg/L	0.00200	04/26/24 13:55	TJW
Surr: 1,2-Dichlorobenzene-d4		E524.2		91.7	1		70 - 130 %Rec		04/26/24 13:55	TJW
Surr: 4-Bromofluorobenzene		E524.2		87.0	1		70 - 130 %Rec		04/26/24 13:55	TJW
Surr: Dibromofluoromethane		E524.2		123	1		70 - 130 %Rec		04/26/24 13:55	TJW
Surr: Toluene-d8		E524.2		89.0	1		70 - 130 %Rec		04/26/24 13:55	TJW

QUALIFIERS

C1	Sample container temperature is out of limit as specified at testcode	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	MI	Recovery outside control limits due to Matrix Interference
ND	Not Detected at the Reporting Limit	PL	Permit Limit

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NELAP

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QC SUMMARY REPORT

WO#: 24040941

30-Apr-24

Client: Medford School District

Project: Ruch Elementary Nitrate and VOC

TestCode: EPA300_PWS

Sample ID: LCS-R48944		SampType: LCS3	TestCode: EPA300_PW		Units: mg/L	Prep Date: 4/22/2024				RunNo: 48944		
Client ID: BatchQC		Batch ID: R48944	TestNo: E300.0			Analysis Date: 4/22/2024				SeqNo: 803606		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrate	1.83	0.200	1.808	0	101	90	110				
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Sample ID: MBLK-R48944		SampType: MBLK		TestCode: EPA300_PW		Units: mg/L		Prep Date: 4/22/2024		RunNo: 48944			
Client ID: PBW		Batch ID: R48944		TestNo: E300.0				Analysis Date: 4/22/2024		SeqNo: 803607			
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrate	ND	0.200									
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Sample ID: 24040941-01AMS	SampType: MS	TestCode: EPA300_PW	Units: mg/L	Prep Date: 4/22/2024	RunNo: 48944						
Client ID: Ruch Elementary	Batch ID: R48944	TestNo: E300.0		Analysis Date: 4/22/2024	SeqNo: 803609						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrate	7.26	0.200	2.000	5.490	88.6	80	120				
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Sample ID: 24040941-01AMSD		SampType: MSD		TestCode: EPA300_PW		Units: mg/L		Prep Date: 4/22/2024			RunNo: 48944		
Client ID: Ruch Elementary		Batch ID: R48944		TestNo: E300.0		Analysis Date: 4/22/2024			SeqNo: 803610				
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrate	7.27	0.200	2.000	5.490	89.1	80	120	7.263	0.135	15	
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Qualifiers: C1 Sample container temperature is out of limit as specified at testcode
MI Recovery outside control limits due to Matrix Interference
RL Reporting Detection Limit

E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
PL Permit Limit

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QC SUMMARY REPORT

WO#: 24040941

30-Apr-24

Client: Medford School District

Project: Ruch Elementary Nitrate and VOC

TestCode: EPA524.2_DW

Sample ID: MB	SampType: MBLK	TestCode: EPA524.2_D	Units: mg/L	Prep Date: 4/26/2024	RunNo: 49094						
Client ID: PBW	Batch ID: R49094	TestNo: E524.2		Analysis Date: 4/26/2024	SeqNo: 806122						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	ND	0.000500									
Vinyl chloride	ND	0.000500									
Surr: 1,2-Dichlorobenzene-d4	0.0375		0.04000		93.8	70	130				
Surr: 4-Bromofluorobenzene	0.0386		0.04000		96.6	70	130				
Surr: Dibromofluoromethane	0.0365		0.04000		91.2	70	130				
Surr: Toluene-d8	0.0386		0.04000		96.6	70	130				

Sample ID: LCS	SampType: LCS	TestCode: EPA524.2_D	Units: mg/L	Prep Date: 4/26/2024	RunNo: 49094						
Client ID: LCSW	Batch ID: R49094	TestNo: E524.2		Analysis Date: 4/26/2024	SeqNo: 806123						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	0.00516	0.000500	0.005000	0	103	70	130				
Vinyl chloride	0.00443	0.000500	0.005000	0	88.6	70	130				
Surr: 1,2-Dichlorobenzene-d4	0.0375		0.04000		93.8	70	130				
Surr: 4-Bromofluorobenzene	0.0400		0.04000		99.9	70	130				
Surr: Dibromofluoromethane	0.0352		0.04000		88.0	70	130				
Surr: Toluene-d8	0.0403		0.04000		101	70	130				

Sample ID: 24040941-01BMS	SampType: MS	TestCode: EPA524.2_D	Units: mg/L	Prep Date: 4/26/2024	RunNo: 49094						
Client ID: Ruch Elementary	Batch ID: R49094	TestNo: E524.2		Analysis Date: 4/26/2024	SeqNo: 806127						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	0.0229	0.000500	0.02000	0	114	70	130				

Qualifiers: C1 Sample container temperature is out of limit as specified at testcode
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RL Reporting Detection Limit

E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
PL Permit Limit

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QC SUMMARY REPORT

WO#: 24040941

30-Apr-24

Client: Medford School District

Project: Ruch Elementary Nitrate and VOC

TestCode: EPA524.2_DW

Sample ID: 24040941-01BMS	SampType: MS	TestCode: EPA524.2_D	Units: mg/L	Prep Date: 4/26/2024	RunNo: 49094						
Client ID: Ruch Elementary	Batch ID: R49094	TestNo: E524.2		Analysis Date: 4/26/2024	SeqNo: 806127						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	0.0132	0.000500	0.02000	0	66.1	70	130				MI
Surr: 1,2-Dichlorobenzene-d4	0.0381		0.04000		95.3	70	130				
Surr: 4-Bromofluorobenzene	0.0353		0.04000		88.2	70	130				
Surr: Dibromofluoromethane	0.0420		0.04000		105	70	130				
Surr: Toluene-d8	0.0428		0.04000		107	70	130				

Sample ID: 24040941-01BMSD	SampType: MSD	TestCode: EPA524.2_D	Units: mg/L	Prep Date: 4/26/2024	RunNo: 49094						
Client ID: Ruch Elementary	Batch ID: R49094	TestNo: E524.2		Analysis Date: 4/26/2024	SeqNo: 806128						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	0.0233	0.000500	0.02000	0	116	70	130	0.02286	1.82	20	
Vinyl chloride	0.0162	0.000500	0.02000	0	80.9	70	130	0.01322	20.1	20	MI
Surr: 1,2-Dichlorobenzene-d4	0.0387		0.04000		96.9	70	130		0		
Surr: 4-Bromofluorobenzene	0.0354		0.04000		88.6	70	130		0		
Surr: Dibromofluoromethane	0.0459		0.04000		115	70	130		0		
Surr: Toluene-d8	0.0361		0.04000		90.2	70	130		0		

Qualifiers: C1 Sample container temperature is out of limit as specified at testcode
MI Recovery outside control limits due to Matrix Interference
RL Reporting Detection Limit

E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
PL Permit Limit

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Sample Log-In Check List

Client Name: MedfordSchoolDist

Work Order Number: 24040941

RcptNo: 1

Logged by: Ashley Spiegelberg 4/22/2024 12:44:00 PM

Completed By: Jordan Diemer 4/30/2024 10:01:39 AM

Reviewed By: Jordan Diemer 4/30/2024 10:04:42 AM



Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? NRC Staff

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒
No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☐ No ☒ NA ☐

Samples were collected the same day and chilled.

7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels? Yes ☒ No ☐
(Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met? Yes ☒ No ☐
(If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	9.3	Good				DG

- A Total Alkalinity and Bicarbonate Alkalinity results are to a pH endpoint of 4.5. Carbonate Alkalinity result is to a pH endpoint of 8.3.
- A-LL The total low level alkalinity results are to a pH endpoint of 4.3-4.7 pH units per SM 2320B-2011.
- B Analyte detected in the associated method blank.
- C Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
- C1 Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
- CF Results confirmed by re-analysis.
- CU Cleanup performed as specified by method.
- E Estimated value.
- ER Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
- FC Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
- HP Sample re-analysis performed outside of method specified holding time.
- HR Sample received outside of method specified holding time.
- HS Sample analyzed for volatile organics contained headspace.
- HT At the client's request, the sample was analyzed outside of method specified holding time.
- H Analysis performed outside of method specified holding time.
- J Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
- L Dissolved metals were not filtered within 15 minutes of collection per 40 CFR Part 136.
- MI Surrogate, Duplicate Sample (DUP) or Matrix Spikes recoveries are out of control limits due to matrix interference. Sample results may be biased.
- N See Case Narrative on page 2 of report.
- Q Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS), and/or matrix spikes exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
- R Relative percent difference (RPD) is outside of the accepted recovery limits.
- R1 The numerical difference between the parent sample and the duplicate (DUP) is outside of the accepted recovery limits. Greater than 5 degrees for Flashpoint, or greater than 0.1 pH units for pH.
- R3 The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
- R4 The Relative percent difference (RPD) is not within control limits because the concentration of the sample result is too low to represent proper statistical error.
- R5 The difference between the BOD/CBOD results for the highest and lowest dilution used for the calculation is >30% because the results are too low to represent proper statistical error. The BOD/CBOD sample result is an average of all qualified bottles for each dilution series. The sample results are not affected.
- R6 The difference between the BOD/CBOD results for the highest and lowest dilution used for the calculation is >30%. This may indicate a possible matrix interference. The BOD/CBOD sample result is an average of all qualified bottles for each dilution series.
- S Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
- S1 Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
- SC Sub-contracted to another laboratory for analysis.
- SP Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
- * Value exceeds Maximum Contaminant Level or is outside the acceptable range.<<>>